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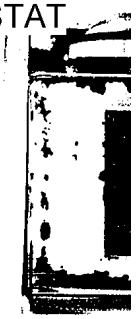

MARINE BIOLOGY RESEARCH LABORATORY OF ACADEMIA SINICA SUCCEEDS IN MAKING PHAEOPHYCEAE (BROWN ALGAE) GEL

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The Tsingtao Marine Biology Research Laboratory, a subordinate agency of the Academia Sinica's Marine Biology Research Department, has made progress in marine biological research. The laboratory has extracted from a species of sea weed called Halochloa macrantha (a variety of brown algae) a type of Phaeophyceae gel of great economic value. The experimental work of the laboratory proves that this type of research is fruitful.

Phaeophyceae gel, which has much specific industrial application, is a type of sea-weed adhesive of exceptional viscosity that is extracted from several varieties of brown algae. It contains phaeophyciec acid, from which sodium salt, antimony salt, calcium salt, as well as other metallic salts are extracted. Sodium salt finds application in the food industry as a stabilizer, purifier, etc.

In the textile industry it can be used to increase the tensile strength and frictional resistance of textile fibres. It is also suitable for use in printing and dyeing fluid, water repellant fluid, the manufacture of high quality artificial fibres, etc. In the rubber industry, antimony salt is often used as a filling agent. In the paper industry, sodium salt can be used as a substitute for pitch and glue as an adhesive substance. while it also augments the absorption capacity of paper coating substance.

In the field of drugs, sodium salt is applicable in the manufacture of gelatinous printing compositions, as well as being a suitable substitute for blood plasma, and useful in the manufacture of medicinal ointments, etc. It also has vast application in the fields of dentistry, ophthalmology, etc. China must import several thousand pounds of materials of this type annually for use in the pharmaceutical field.

The distribution along the seacoast of the Halochloa macrantha, from which the phaeophyceae gel is extracted, is extensive. According to estimates, in the North China coastal area alone the annual production of uried Halochloa macrantha amounts to approximately 1,000 tons. In the South China coastal region, production is still greater. In addition to containing phaeophyceae gel, Halochloa macrantha also produces potassium chloride, iodine, and other by-products. At present, with the exception of a few areas which use Halochloa macrantha for fertilizer, there is still no advantageous economic utilization of the gel.

After the Tsingtao Marine Biology Research Laboratory succeeded in extracting the phaeophyceae gel, they then combined the phaeophycic acid sodium salt which they had manufactured from Halachloa macrantha with other chemical substances to form a gelatinous printing composition. This mixture can also be used for medical purposes. The Peking Medical College tested the product and found it to be basically effective and useful. At present, the Tsingtao Marine Biological Research Laboratory is continuing its research on phaeophyceae gel and the gelatinous printing composition to further refine and perfect these products.

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